

	Currency Ink Production: Handling, Storage, Packaging and Delivery		Revision: #3
	Document Control Number: 93.00-3.12		Date: 1/13/03
QUALITY PROC.	Responsible Organization: Office of Production Support		
	Approved By: Doug Bernia	Signature: <SIGNED>	

- 1.0 **Purpose:** To provide instruction for the packaging, labeling and staging of BEP produced currency inks.
- 2.0 **Scope:** This procedure applies to all currency ink production at both the Washington and Western facilities.
- 3.0 **Responsibilities:**
 - 3.1 It is the responsibility of laboratory personnel to ensure that labels provided to ink makers contain all of the necessary information, and that HOLD labels are provided for inks that do not meet all quality requirements.
 - 3.2 It is the responsibility of ink makers to ensure that the correct labels are affixed to the appropriate drums, and that the correct container is used for each currency ink.
- 4.0 **Containers:**
 - 4.1 Reconstituted black magnetic ink is to be exclusively contained in black 55 gallon open-head drums, **and is restricted to use in the printing of \$1 Federal Reserve Notes.**
 - 4.2 Non-magnetic black ink is to be exclusively contained in red 55 gallon open-head drums.
 - 4.3 Taggant Cope inks are to be packaged in 5 lb. cans or 5 gallon kits, as appropriate.
 - 4.4 Non-Taggant Cope inks are to be packaged in 10 lb. cans or 5 gallon kits.
- 5.0 **Labels:**
 - 5.1 White labels of sizes 8.5" x 11" and 4" x 6" will be placed on 55 gallon drums used in the BEP ink mill facilities in Washington, DC and Fort Worth, respectively.
 - 5.2 All drum labels will contain the following information:
 - Part number (scripted and barcoded)
 - Serial/Lot or Ink Type (scripted and barcoded)
 - Batch number
 - Production Date
 - Initials of Laboratory personnel approving ink usage
 - 5.3 Labels for cans and kits are color-coded by ink type and type of container; Note: DC uses 3" x 4" labels and Fort Worth uses 4" x 6" labels:
 - Yellow labels for non-secure Cope green ink in cans and kits
 - Green labels for \$1 Cope green in cans

- Pink labels for ACD Cope green #2 in cans and kits
- Blue labels for ACD Cope black #2 in cans and kits
- White labels for ACD Cope black #1 in cans and kits
- Gold labels for ACD Cope green #1 in cans and kits
- Gray labels for non-secure Cope black in cans

5.4 All labels for cans and kits will contain the following information:

- Ink Type (scripted)
- Part number (scripted and barcoded)
- Batch number (scripted and barcoded)
- Production Date
- Can/Pail Number (scripted and barcoded)

6.0 Drum Packing Procedure:

NOTE: The proper drum color must be used for the type of ink, as stated in 4.1 and 4.2 above. Determine the type of ink being milled by checking the batch ticket.

- 6.1** After placing the proper drum onto a dolly, insert a plastic drum liner, leaving about 10 inches of the liner folded over the outside of the rim.
- 6.2** Tape the liner to the drum by running a band of tape horizontally along the edge of the liner securing it to the outside of the drum. Run a second band of tape just under the rim.
- 6.3** After ink has been milled and placed into the drum, apply a plastic drum liner cover directly onto the ink. The liner cover should be smoothened tightly against the ink by hand. Tuck the liner between the ink and the sides of the drum, forming a seal around the edge of the ink.
- 6.4** When the batch passes the initial laboratory tests, attach one of the lab-issued drum labels to the side of the drum identifying the ink by part number, type of ink/serial lot number and batch number.
- 6.5** Place the lid on drum and secure with metal band. Attach the other drum label on the lid. Attach the lab-issued shipping/packing envelope containing the batch cards next to the drum label on the lid. For a Recon ink batch, attach also a yellow colored label "FOR \$1 PRINTING ONLY".
- 6.6** Determine the net weight of the ink inside the drum. Record the weight on each batch card.
- 6.7** Place completed drum on skid with identical drums of the same type of ink. Store the ink drums in designated area.

NOTE: Damaged drums of inks are segregated from other inks in storage. Damaged in-house manufactured inks are segregated from contractors (Sicpa) inks. Inks are repackaged, labeled appropriately, made available by placing in storage and inventory for customer use.

7.0 Kit Packing Procedure:

- 7.1** Determine the type of Cope ink being milled by checking the batch ticket. Secure enough appropriate kits as stated in 4.3 & 4.4 above. Kits shall be color coded to the type of Cope Ink:
 - Black kits for ACD Cope Black Ink #1
 - Blue kits for ACD Cope Black Ink #2
 - Green kits for ACD Cope Green Ink #1
 - Red kits for ACD Cope Green Ink #2

- Yellow kits for Non Secure Cope Green Ink

- 7.2 Fill container to a net weight of 40 pounds. Place a skin paper tightly against the top of the ink. The skin paper should be smoothened tightly against the ink by hand. Secure lid on top of kit.
- 7.3 When packing is complete, inform the Ink Mill Laboratory the number of kits packed and net weight of last kit packed. Laboratory personnel shall issue the necessary labels.
- 7.4 Attach appropriate identifying labels. Move the containers to the pick-up area for transport to designated storage area.
- 7.5 At the end of the day, submit the batch tags (initialed and returned by the Ink Mill Laboratory personnel) to the Ink Maker Foreman.

8.0 Can Packing Procedure:

- 8.1 Determine the type of Cope ink being milled by checking the batch ticket. Secure enough appropriate cans as stated in 4.3 & 4.4 above.
- 8.2 Fill container to the top of the rim. Place a skin paper tightly against the top of the ink. The skin paper should be smoothened tightly against the ink by hand.
- 8.3 Place the lid on top of the can. Use appropriate colored tape to seal and secure the lid to the can - green tape for green ink and black tape for black ink accordingly.
- 8.4 When packing is complete, inform the Ink Mill Laboratory the number of cans packed. Laboratory personnel shall issue the necessary labels.
- 8.5 Attach appropriate identifying labels. Move the containers to the pick-up area for transport to designated storage area.
- 8.6 At the end of the day, submit the batch tags (initialed and returned by the Ink Mill Laboratory personnel) to the Ink Maker Foreman.

9.0 Cope Pak Ink Tube Procedure (Fort Worth Mill Only):

- 9.1 Receive order from Cope Pak Forman, and process the order through General Stores.
- 9.2 When the order is received from General Stores, check the ink bucket data with the accompanying receiving paperwork to ensure it is the proper ink, and sign for the ink.
- 9.3 Obtain the following data from information tag on ink bucket (each bucket has a net weight of 40 pounds or less): date made, ink type and batch number.
- 9.4 Use forklift to remove the ink pump used to pump the particular type of ink from storage area to pumping stage.
- 9.5 Work Place Set Up
 - 9.5.1 Set up scale
 - 9.5.1.1 Turn on scale; place tube, plunger and end cap on the scale.
 - 9.5.1.2 Turn off scale and wait 5 seconds.
 - 9.5.1.3 Turn scale on and wait for the scale to zero out, and once the scale has zeroed out, remove tube, plunger and end cap.
 - 9.5.2 Get supplies from storage areas i.e., rags, solvent, silicone spray, tubes, end caps and plungers.
 - 9.5.3 Spray silicone spray on the plungers, insert into tubes sliding it into position ensuring a proper seat or seal.

11.0 Shelf Life:

The term "shelf life" refers to the period for which the performance characteristics of an ink remain at optimum so that it will remain usable for its intended purpose. Since "shelf life" cannot be strictly measured, it is therefore meant to characterize the resistance level of a particular ink to deterioration by factors, including but not limited, to oxygen in the air, heat, humidity, light, or by internal chemical action. In all cases, the shelf life of an ink is dependent on the variables of the chemistry of the individual ink and its associated storage requirements. These variables differ not only from chemistry to chemistry but also from ink type to ink type, including the ink colors. If at all possible, all inks must be stored at optimum conditions, where the temperature, humidity, etc. can be favorably adjusted or controlled. Shelf life Information for BEP-manufactured inks are:

<u>Stock No.</u>	<u>Product Description</u>	<u>Shelf life (Months)</u>
1I000898	ACD COPE Black Base #1	24
1I000895	ACD COPE Black Ink #1	24
1I001204	ACD COPE Green Base #1	24
1I000894	ACD COPE Green Ink #1	24
1I001281	ACD COPE Black Base #2	24
1I001282	ACD COPE Black Ink #2	24
1I001283	ACD COPE Green Base #2	24
1I001284	ACD COPE Green Ink #2	24
1I000687	COPE Black Ink	12
1I001201	COPE Green Ink	12
1I001229	COPE Green Ink	12
1I001327	Remilled OVI	12
1I000585	Reconstituted Black Intaglio Currency Ink	12
1I000600	Non-magnetic Black Intaglio Currency ink	12

Note: All ACD COPE ink batches that are over 12 months old from the date of manufacture or the last date of testing, which ever is the case, will be retested for acceptable Spectral levels prior to delivery to COPE Sections.

Other applicable quality control tests such laundry, viscosity, and drying time will be performed if the ACD COPE inks are over 24 months old.

All other BEP-manufactured inks with expired shelf life will be subjected to a quality control re-screening to determine its condition for production use.

12.0 Shipping (For WCF only):

After ink is lab tested and approved for release, the approved manufactured Ink is picked up by the General Stores section for storage in the storeroom, or shipped directly to the Production floor by using BEPMIS to accomplish the transaction.

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Chgs to Sections 4.0 Containers, 6.0 Drum Packing 9.0 Cope Pak Ink	5/28/02
2	Chgs to Sections 5.0 Labels, 9.0 Cope Pak Ink Tube Procedure (WFC), 11.0 Shipping.	8/27/02
3	Insertion of Section 11 Shelf Life, Insertion of Note: after Section 6.7 segregating drums of in-house & contractors Sicpa damaged drums of inks	1/13/03